properties of the parts of the living body, together with the conditions needful to their operation.

ORGANIZATION is a system of arrangements whereby the particles of which the body is composed,, acting according to their properties, do, by means of such processes as absorption, assimilation, and exhalation, produce and develop certain forms which continue for a time, and generate other organic life of the same species. ORGANIC LIFE is a generic name for those properties which matter possesses only in its organized state, or that state of peculiar adjustment which is called organization. These vital properties differ as much from the mechanical and chemical, as the mechanical and chemical do from one another. Attempts are being made to Discover what these properties are, as possessed by cells, by tissues, by tubes, by nerves, and we find them to be such as that of absorption, of contractility, of irritability. Like all the other properties of matter, they are powers by which one body acts on another, and in order to action there is therefore need of other matter, organized or unorganized.

Hence we find that all organized bodies require nourishment, on which the vital properties act in the way of assimilation and absorption. Not only so, but in order to action there must be stimuli, such as light, heat, moisture, and electricity, which are necessary conditions of all vital operation. No vital activity can manifest itself without the concurrence both of the organism and the external agent. " Thus, a seed does not germinate *of itself;* it requires the influence of certain external agencies, namely, warmth, air, and moisture ; and it can no more produce a plant without the operation of these, than warmth, air, arid moisture could produce it without a germ prepared by a pre-existing organism,"*

* Manual of Physiology, B. i. c. u. 2d ed. We like the phrase "

correlation of the physical forces," employed by Mr. Grove to denote the intimafce connexion which, there is between the various physical forces, and their power of calling forth each other in (Interminable measure. We believe, too, that Carpenter and Matteucd have shown that there is a similar correlation between the physical and vital forces. The authors now referred to are quite aware that correlation is not identity, and hence they are careful to explain that they do not look upon the forces as being all the samju But there is language employed by them which seems to imply that one force can be *transmuted* into another—a doctrine which *w* not supported by anything like valid evidence, and is contrary to the wholo analogy of nature, which shows us, amidst constant changes, ft constant permanence of